



The ocean margin (continental shelf, slope and rise), with its high productivity and under the strong influence of continental input, is an important source of dissolved and particulate matter for the open ocean. Furthermore, deep-ocean waters, rich in nutrient and high in dissolved trace elements, are transferred across the shelf edge and help to sustain the high productivity of biota in the coastal zone and shelf seas. The quantification of fluxes across the ocean margins is therefore a fundamental requirement for the evaluation of the global biogeochemical cycle of carbon, nutrients and trace elements in the marine system. It has been widely recognized, however, that there is a lack of knowledge and understanding as well as quantification of the processes occurring at the ocean margins, which is critical for the evaluation of global biogeochemical cycles. The

understanding of the distinctive and often enhanced processes occurring at the ocean margins is however a prerequisite for the prediction of the consequence of climatic change and of other anthropogenic perturbations. The Ocean Margin EXchange (OMEX, <http://www.pol.ac.uk/bodc/omex/omex.html>) project, designed to meet the priority goals of the International Geosphere–Biosphere Programme, takes into account the specific features of the European marine environments and settings, and the expertise of the oceanographic community in the EU countries. It concerns essentially the study of ocean margin fluxes and processes along European shelf break facing the North Atlantic Ocean. The aim has been to measure and to model exchange processes at the ocean margins as a basis for the development of global models to predict the impact of environmental changes on the oceanic system and more specifically on the coastal zone. This project is part of the ongoing worldwide national and international efforts to study the processes affecting the biogeochemical cycle of carbon and associated elements at the ocean margins. During the phase I of the OMEX project carried out from 1993 to 1997, the data were collected mainly from two geographic areas: the Norwegian shelf break off Tromsø and the Celtic Sea shelf break from the Goban Spur to La Chapelle Bank. A special issue devoted to the results obtained in the area of the Norwegian shelf break has been published in the Nordic Journal of Marine Biology Sarsia. The data set from the OMEX-I project has been electronically published on CD-ROM by the British Oceanographic Data Centre (BODC).

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